

ANDERSON CALHOUN MINE/MILL

Figures

Fig 4-1 Site location

Topo map

Fig 42 Underground workings X-section

Fig 6-37 Site features (north arrow points south)

Fig 6-38 Sample locations (north arrow points south)

Mine Operations/Production

- Discovery 1910. Explored by shallow pits and trenches
- Produced 1948-52, 1966-68 from open pit +/- underground workings
- Production:
 - ~1,700,000 lbs. lead
 - ~54,000,000 lbs. zinc

Mine Workings

- Open pit 100' x 50' x ? deep, filled with water
- Some underground workings (Fig 42)

Other Mine Features

- 1,200-ton flotation mill (constructed 1966), crusher, flotation cells, drums of reagents, portal
- Old mill
- Mine building
- Flotation building
- Tailings impoundment 555' x 500' x ? deep, surface water ponded
- Waste rock pile under conveyor 120' x 80' x 20'
- Evaporation pond 105' x 50'
- Shops, warehouses, other support buildings
- Stained soil around drums
- Transformers in 6 areas

Geology

- Solution collapse breccia in Middle Dolomite of Cambrian Metaline Limestone
- Mild regional metamorphism
- Sulfides in matrix of breccia
- Pyrite (FeS₂), sphalerite (ZnS), galena (PbS), quartz, dolomite. Pyrite = sphalerite
- Some cadmium and silver recovered from sphalerite and galena, respectively

SI Sampling

Figure 6-38 sample locations

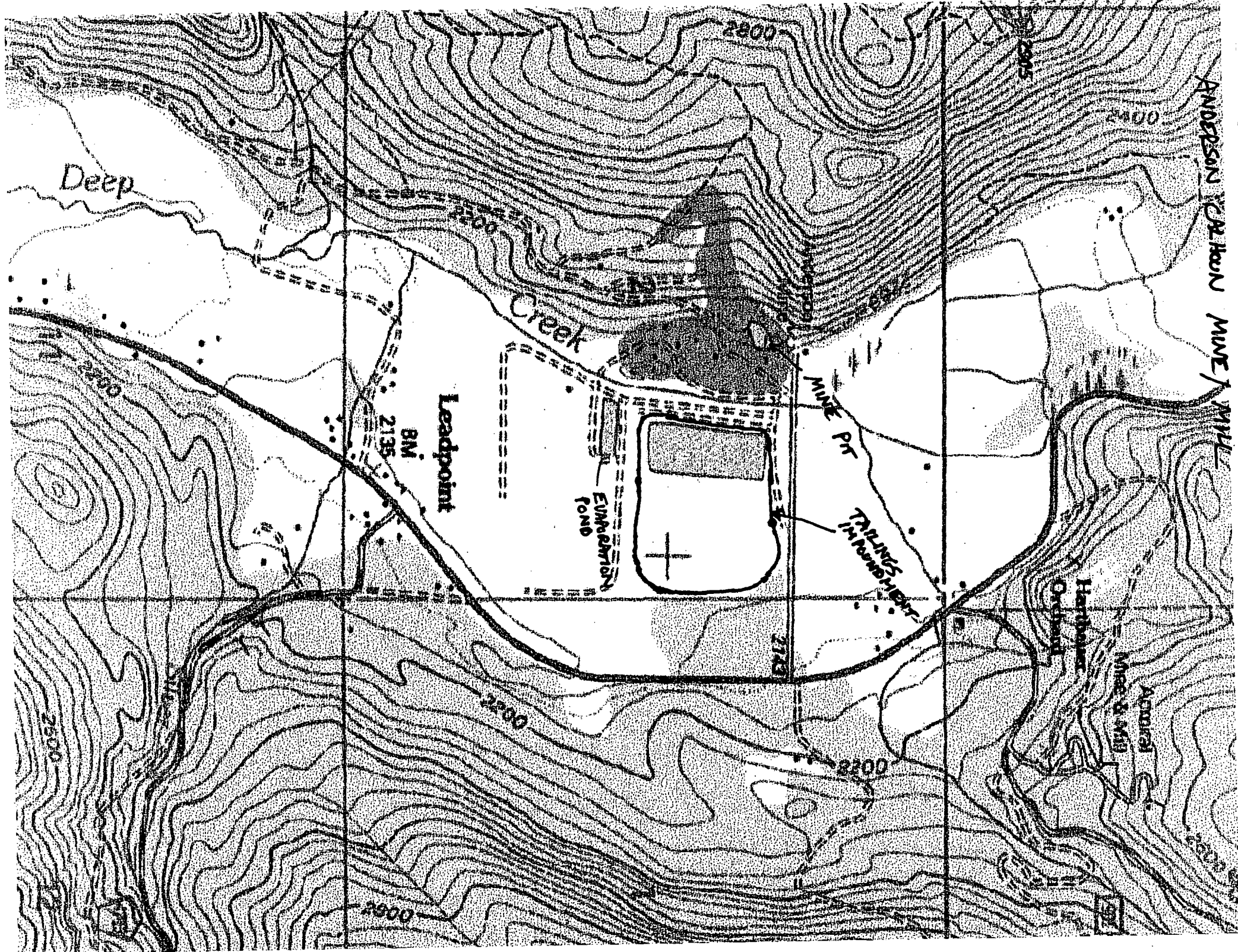
- Tailings: 3 surface samples from dry eastern side (gray silt)

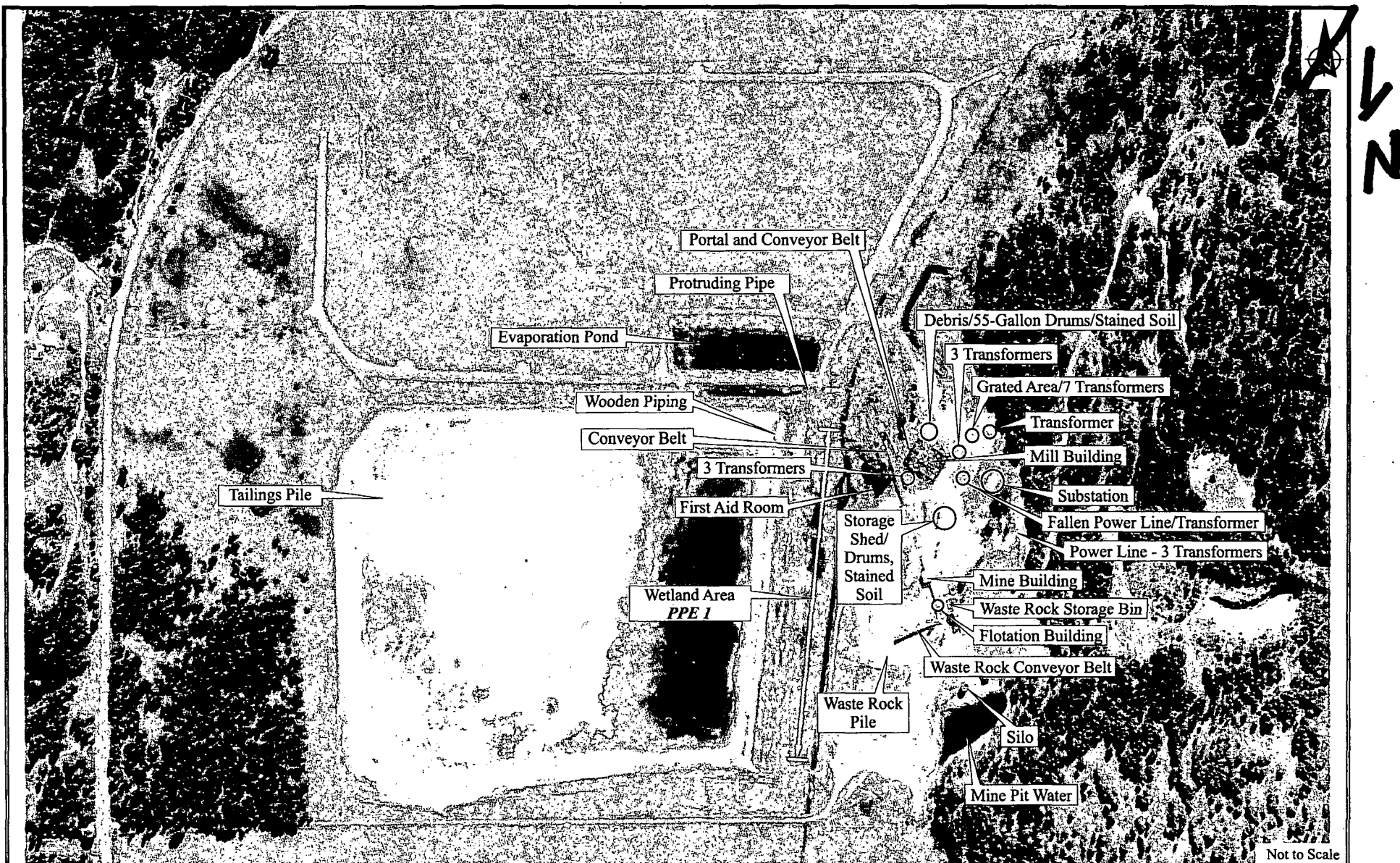


Cu: 39.2 – 55.0 mg/kg

Hg: 0.12 – 0.19 mg/kg

- Tailings: 3 “sediment” samples from ponded area (dark brown-black silt)
 - As: 4.3 – 10.0 mg/kg
 - Cd: 4.7 – 7.5 mg/kg
 - Cu: 30.7 – 67.4 mg/kg
 - Pb: 317 – 320 mg/kg
 - Hg: 0.17 mg/kg
 - Zn: 723 – 3,250 mg/kg
- Soil near mine and mill: 4 samples (stained black sand/gravel, oily odor)
 - Cd: 124 – 129 mg/kg
 - Cu: 73.8 – 115 mg/kg
 - Pb: 2,130 – 2,190 mg/kg
 - Hg: 0.18 – 0.35 mg/kg
 - Zn: 44,900 – 49,000 mg/kg
- Surface water: 1 sample of mine pit water (clear blue-green)
 - Pb: 192 ug/L
 - Zn: 1,480 ug/L
- Sediment: 1 sample at confluence of breach in tailings pond and wetland (black silt/sand with organic odor)
 - Cu: 23.2mg/kg
 - Zn: 343 mg/kg



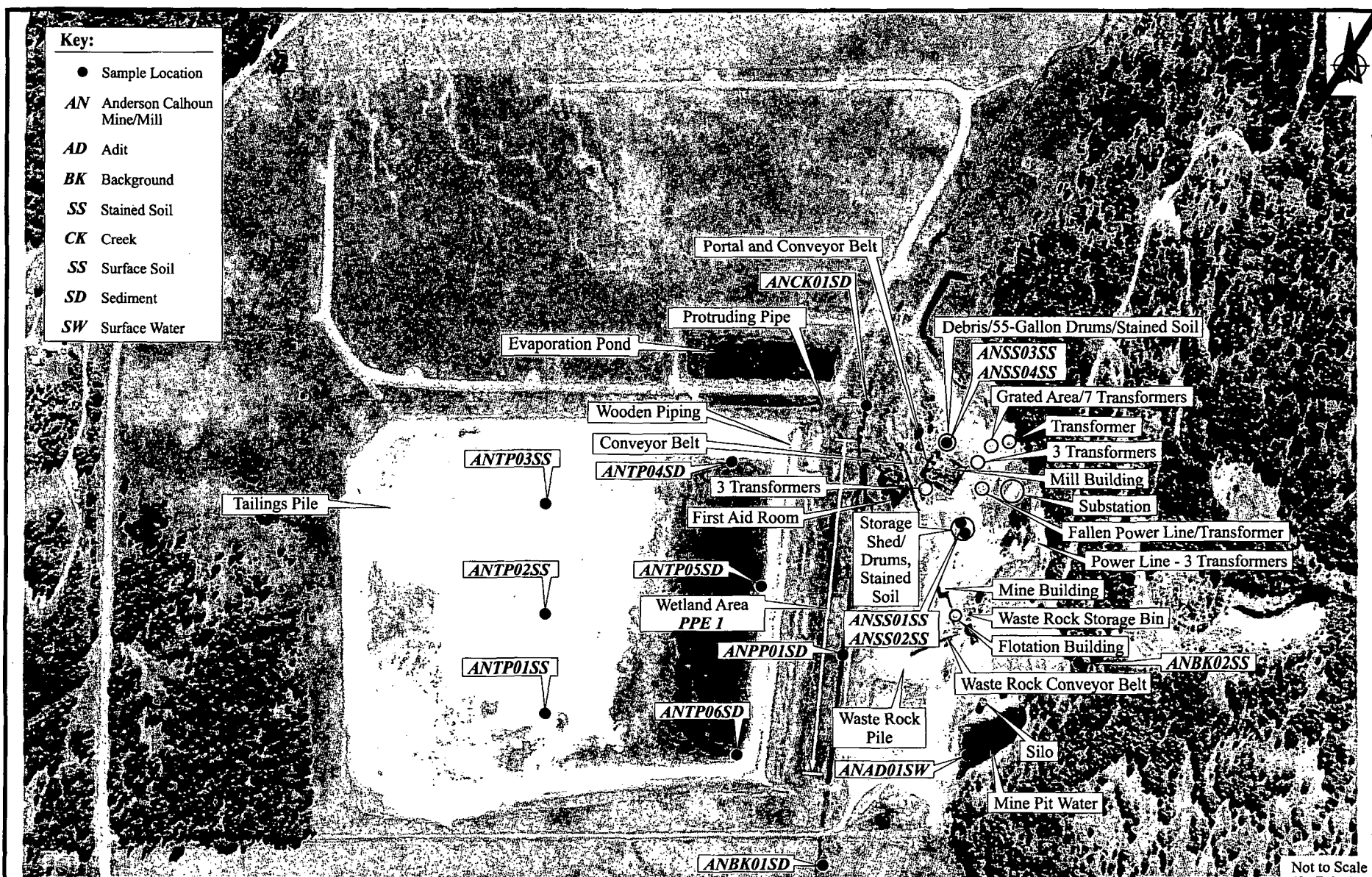


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UPPER COLUMBIA RIVER
MINES AND MILLS
PRELIMINARY ASSESSMENTS AND SITE INSPECTIONS
Stevens County, Washington

Figure 6-37
ANDERSON CALHOUN MINE/MILL
SITE MAP

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8-20-02	AES
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Not to Scale



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Figure 6-38
ANDERSON CALHOUN MINE/MILL
SAMPLE LOCATION MAP

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